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June 12th, 1959

COCOM Document No. 2869.96

COORDINATING COMMITTEE*5. List Pels*RECORD OF DISCUSSIONONREVIEW OF THE STRATEGIC EXPORT CONTROLS - EXCEPTIONS PROCEDURESJune 9th, 1959

Present: Belgium (Luxembourg), Canada, Denmark, France, Germany, Italy, Japan, Netherlands, Turkey, United Kingdom, United States.

References: COCOM 471(Revised), 1473, 2869.5, 2869.13, 2869.55, 2869.62, 2869.75, 2869.77, 2869.79, 2869.81, 2869.83, 2869.86, 2869.88, 2869.89, 2869.92, 2869.93, 2869.94, 2869.95, Secretariat Paper No. 104.

1. The CHAIRMAN recalled that at the previous meeting he had suggested that Delegates should obtain the views of their authorities on the four points listed in paragraph 8 of COCOM 2869.95. He invited Delegates to comment on the first of these points, the German proposal to extend the de minimis procedure to certain Atomic Energy and Munitions List items (COCOM 2869.94, paragraph 10 and COCOM 2869.95, paragraph 3).

2. The GERMAN Delegate said that in order to facilitate agreement his authorities had decided to withdraw their proposal to include Munitions List Items 8 - powders, explosives and propellants and 13 - special armoured equipment.

3. The UNITED STATES Delegate said that his authorities could accept the German proposal concerning the five Atomic Energy List items proposed by the German Delegate on May 14th (COCOM 2869.94).

4. The UNITED KINGDOM Delegate said that his authorities could accept the German proposal of May 14th concerning five Atomic Energy List items. With regard to the additional three Atomic Energy List items proposed by the German Delegate on June 1st, he could not agree to the inclusion of Item 11 - nickel powder and he had no instructions on the other two items.

5. The CANADIAN Delegate said that his authorities were satisfied with the interpretation of the present procedures that the submission of Atomic Energy and Munitions List exceptions based on the merits of each individual case was not excluded. His authorities could accept the first German proposal concerning five Atomic Energy List items.

6. The JAPANESE Delegate stated that his authorities could accept the first German proposal concerning five Atomic Energy List items.

7. The DANISH Delegate said that he was instructed to associate himself with the majority view.

8. The NETHERLANDS Delegate recalled that his authorities were opposed to the adoption of any special list since it posed a very difficult problem for the control authorities. As a compromise his authorities were prepared to join the majority on this question.

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9. The ITALIAN Delegate said that his authorities were in favour of accepting the five items initially proposed by the German Delegation. He reserved his position on the remaining three items.

10. The BELGIAN Delegate reiterated that his authorities were opposed in principle to the adoption of any special list. He could, however, accept the German proposal on five Atomic Energy List items.

11. The GERMAN Delegate pointed out that there was a special list in existence at the present moment. What his authorities had in mind was a simpler procedure for submitting exceptions cases where these Atomic Energy List items were concerned; they did not want to be obliged to use the more complicated ad hoc procedure. He stated that he was prepared to withdraw his proposal concerning Atomic Energy List Item 11 and that his authorities would not insist on the inclusion of Items 9 and 10 but they would be grateful to have the reasons why Members of the Committee considered that the inclusion of these items presented special difficulties.

12. The FRENCH Delegate thanked his German colleague for his explanation and said that he could accept the first German proposal concerning five Atomic Energy List items.

13. The CHAIRMAN noted that the German proposal for the extension of the de minimis procedure to Atomic Energy List items 6 - tetrafluoroethylene, 7 - trifluoroethylene, 14 - fluorine, 15 - chlorine trifluoride, 17 - fluorinated hydrocarbons had been unanimously accepted. He further noted that the German Delegation withdrew their proposal concerning Atomic Energy List item 11 - nickel powder and Munitions List items 8 - powders, explosives and propellants and 13 - special armoured equipment and the Committee would hear at a later date the reasons why the inclusion of Atomic Energy List items 9 and 10 presented special difficulties.

\$150 cut-off: items proposed for exclusion.

14. The CHAIRMAN then invited Delegates to give the views of their authorities on the United States proposal (COCOM 2869.91) for various List I items to be excluded from the \$150 cut-off.

15. The UNITED KINGDOM Delegate made the following comments on the eleven List I items mentioned in the United States Memorandum:

"Item 1544 - Crystal diodes:

Without disputing the arguments given in COCOM 2869.91, the fact remains that the Russians are now in possession of test instruments, radar sets and guided missiles. We think it unrealistic to imagine that their capabilities in these fields would be materially improved (or, indeed, improved at all) by acquisition of the right to purchase small lots of crystal diodes from the West.

Item 1545 - Transistors:

The special know-how that goes into making transistors of any particular kind cannot be deduced by physical examination, however detailed, of the final product. For this reason we think that the acquisition of small quantities of transistors from the West would not be of any significance, from a supply point of view, to the Bloc's military potential.

Item 1548 - Photocells:

Photocells are in world-wide use for a variety of purposes both civil and military. We do not think small shipments from the West, even of highly sophisticated types, would materially affect the Bloc's military capacity.

Item 1555 - Image converters and Storage tubes:

The same remarks apply to these items for infra-red appliances as are given in Item 1548 above.

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Item 1558 - Electron tubes n.e.s.:

It is unlikely that any electron tubes covered by Item 1558 will contain important extractable know-how and we do not consider the supply aspect to have any significance. It is scarcely conceivable that the Russians would make any of their important military equipment dependent on electron tubes imported in small lots from the West, or that they would need to do so.

Item 1559 - Thyatron tubes:

As for Item 1558 above.

Item 1702 - Synthetic hydraulic fluids.Item 1755 - Silicone fluids and greases.Item 1781 - Synthetic lubricants.Item 1793 - Petroleum-based hydraulic fluids.

These items are, in general terms, lubricants and hydraulic fluids which have been developed to make them particularly suitable for aircraft applications. The amount and nature of published literature on synthetic lubricants (Item 1781) is now such that we think it unlikely that any "technology" can be extracted by the Bloc from the analysis of lubricants caught by Item 1781 (a) and (b). We could agree that they might possibly learn something about the products caught by Item 1781 (c) by analysis and experiment on purchased lots but we would not in any case rate such know-how as conferring significant strategic gain sufficient to warrant the appearance of the item on a negative list. The Russians have ample supplies of lubricants and hydraulic fluids and even if some Western products are superior in lubricating quality and high temperature stability small quantities of such products purchased from the West could make no significant difference to Russian ability to put their aircraft in the air or launch their missiles successfully.

Item 1801 - Synthetic Rubber:

The technological "know-how" in this synthetic rubber would not be extractable from a small sample. The general chemical structure could be analysed from a sample but details of additives, accelerators, etc., could not be deduced. The item would not, therefore, be prejudiced by the export of small quantities."

The Delegate repeated that in his Government's view, all List I items should be covered by the \$150 cut-off in the context of the minimum shipments procedure.

16. The FRENCH Delegate made the following statement:

"The United States Delegation have proposed that certain List I items be excluded from the value cut-off of \$ 150. From the technical point of view this decision was probably taken to prevent the Sino-Soviet Bloc learning of recently developed techniques. Technological understanding of a manufacturing process, and its copying, involve a considerable amount of laboratory work. If this laboratory work is carried out in the West, the resulting prototype is not usually sold or, if it is sold, its price is considerably in excess of the \$ 150 cut-off. From the technical point of view, large-scale production only adds details of execution which are known to specialists in the item, but cannot be reproduced immediately unless great financial sacrifices are made and unless the technological and checking processes are known. Even assuming that a new item ready for large-scale production was known to or in the possession of the Sino-Soviet Bloc, to be able to judge of the item's qualities they would need to set up an assembly capable of utilising the item and to carry out experiments with the item itself. For an item having a service lifetime in the neighbourhood of 1,000 hours, a useful lifetime of about 200 hours can be

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estimated if laboratory adaptation was required and provided that the laboratory staff were skilful in carrying out the test. If it is desired to avoid giving away information as to newly-developed materials, what would have to be placed under embargo would be the technical journals. For all industrial countries reveal their new techniques in greater or less detail, including at times the techniques employed for their industrial exploitation. If to the outsider the descriptions may seem incomplete, they speak plainly to the expert who can easily discern upon seeing a description just what technological methods have been used. It should not be believed, however, that the Sino-Soviet Bloc wait for the West to give them all this technical information; in especial, during the meetings of the International Electrotechnical Committee, the delegates from the U.S.S.R., Hungary, Poland and the People's Republic of China worked out with the Western Bloc delegates control rules governing the greater part of the items which were to be studied. The discussions taken place in these committees reveal the advance on certain points of the technique evolved in the U.S.S.R. in particular. Thus, for crystal diodes, not only is the technique comparable between the West and the East, but also certain points of detail have been explained in publications:

Philippov: "Frequency properties of compound crystal triodes"

Temkin: "Temporary deterioration of the detection properties of high-frequency crystal diodes"

and so on. As regards transistors, work is being carried out in the U.S.S.R. in particular on the linear properties of junction type transistors (Borissov), and on "Problems of the effective mass of electrons and of holes in germanium" (Kopets) etc. As to photo cells and their substitutes the photomultiplier tubes, secondary phenomena such as oscillations in photoelectric cells and photomultipliers (Nakovetski). As to image converters and storage tubes, the price of these (about \$1,000 to \$1,500) would prevent their benefitting from the \$150 cut-off, together with certain new electronic tubes, which by reason of their special function can be built partially on automatic machines and partly finished, including pumping, by manual processes. As to electron tubes, it should not be overlooked that the U.S.S.R. produced the first plane electrode tube (DCMA type) the description of which was given in 1944 by the United States review "Proceedings of the Institute of Radio Engineers" and that this Russian research gave rise to the great development of plane electrode tubes used at very high frequencies which followed the publication of the above-mentioned article.

17. The GERMAN Delegate asked whether the United States were ready to reconsider their position at least as far as part of their list was concerned. There might be a possibility for a compromise for some items, for example those manufactured almost exclusively in the United States.

18. The COMMITTEE agreed to continue the discussion on June 12th.

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